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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/356,564 | 07/19/1999 | TOSHIO NORITA | 030682-086 | 7986 |

21839 7590 02/12/2004

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EXAMINER

TRAN, NHAN T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2615

DATE MAILED: 02/12/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/356,564

Applicant(s)

NORITA ET AL.

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18, 19, 24, 25 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18, 19, 24, 25 and 30-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/28/2003 with respect to claims 18-19 & 24-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 18, 19, 24, 25, 30 – 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terada et al (US 6,124,888) in view of Toyama et al (US 5,031,049).

Regarding claim 18, Terada discloses a digital camera (Fig. 7; col. 11, lines 32-37) comprising:

an image sensor (103 or 602) for converting a subject image into electric signal on a plurality of pixels to obtain a captured image, the image sensor is capable of randomly selecting

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one or more pixels to be read out from the plurality of pixels (see Figs. 1, 7 & 25; col. 11, lines 16-29, wherein “randomly selecting” is implied in col. 11, lines 62-65);

a control circuit (108, 109) for reading out the electric signal from the image sensor in accordance with a pixel pattern (e.g., block, skip or whole pixel pattern), the pixel pattern being different from among first (e.g., still mode) and second (e.g., video or motion display mode) operations of the digital camera (see Figs. 10 & 15; col. 11, lines 16-29 & col. 12, lines 11-28);

the first operation is a recording operation to record the captured image in a recording medium (105) in accordance with the first pixel pattern (see col. 11, lines 39-40).

Terada also discloses that in case of making focus adjustment, the object can be monitored through a display by outputting a video signal (see col. 11, lines 47-51). Terada does not clearly teach that the second operation is an autofocus operation in which the second pixel pattern has a predetermined area having a higher density of pixels-to-be-read than the other areas of the second pattern.

Toyama teaches an autofocus method, wherein a full (NTSC) is output for imaging and only a portion is selected via gate to use for autofocus (Fig. 6; col. 7, lines 28-42). Thus the density (i.e., number of pixels per row) in Toyama is less in the autofocus pattern than it is in the imaging (NTSC) pattern.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Terada to include the teaching of Toyama for reading less number of pixels per row via gate to enable autofocus with less loaded data for a fast follow-up autofocus fashion.

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Regarding claim 19, as taught by Toyama, the focused area is variable according to a position of the subject in the image in focus (see col. 7, lines 28-42).

Regarding claim 24, the method claim is analyzed with respect to the apparatus claim 18.

Regarding claim 25, the claimed limitations are analyzed with respect to claim 19.

Regarding claim 30, the claimed limitations are analyzed with respect to claims 18, 19, 24 & 25, and further a third pixel pattern (Fig. 2B) has a smaller number of pixels-to-be-read than the second pixel pattern in accordance with a display operation to display a captured image as shown by Toyama, and also described as a block image in Terada, col. 16, lines 31-35.

Furthermore, for the limitation “a control circuit for selecting pixels-to-be read from all pixels of said image sensor in accordance with the selected pixel pattern, to read out the selected pixels,” it is met by the combination of Terada and Toyama as analyzed above (see Terada, col. 11, lines 16-29).

Regarding claim 31, the method claim is analyzed with respect to the apparatus claim 30.

Regarding claim 32, the combination of Terada and Toyama discloses all the claimed limitations as analyzed in claims 18 & 30. It should be further noted that pixel density of the image sensor is uniform (see Terada in Fig. 1) so that a focused area must have the same pixel density as the whole image sensor regardless operation modes.

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Regarding claim 33, the method claim is analyzed with respect to the apparatus claim 32.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

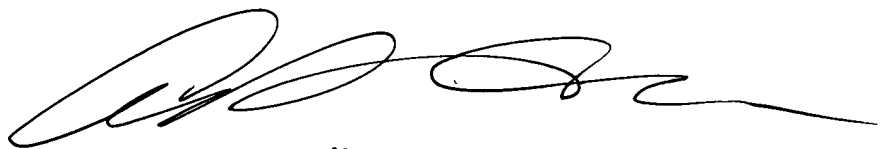
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (703) 605-4246. The examiner can normally be reached on Monday - Thursday, 8:00am - 6:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.

A handwritten signature in black ink, appearing to read 'Andrew Christensen', with a long horizontal flourish extending to the right.

ANDREW CHRISTENSEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600